

Remarks

The Applicant respectfully requests entry of the above Amendments, and consideration of the application as amended.

By these amendments, the Applicant cancelled claims 1-77 and 79 (some of these claims were previously canceled) and amended independent claim 78 to better define one aspect of the present invention. Numerous dependent claims were amended to address inconsistencies and grammar. Claims 83-93 are new, and contain many of the aspects of the present invention recited in the cancelled claims. No new matter was introduced.

Claims 78 and 80-93 are now pending in this application.

Response to Office Action

1. Response to Claim Objection

In paragraph 1 on page 2 of the Action the Patent Office objected to the wording of claim 31. Since claim 31 has been cancelled, this objection is now moot.

2. Response to Rejections Pursuant to 35 USC §102 based upon Cox

In paragraphs 2 and 3 on page 2 of the Office Action, the Patent Office rejected claims 9, 11-13, 31, 48, 49, 59-64, 75, 76, and 78-82 pursuant to 35 U.S.C. 102(b) as anticipated by U.S. Patent 5,290,294 of Cox, et al. [herein "Cox"]. The Applicant submits that the above amendments to claim 78 and its dependents distinguish over Cox. The Applicant requests that the Patent Office reconsider this rejection in view of these amendments.

With respect to claim 78, claim 78 has been amended to recite that the cannula includes a "radially-expandable opening" on the distal end and that the obturator have "a point formed on the distal end of the shaft, said point tapering distally from a maximum diameter band." Furthermore, claim 78 now recites that the movement of the obturator caused by the interaction of the camming surfaces causes the maximum diameter band of the obturator to radially deflect the radially deflectable opening as the maximum diameter band passes through the radially deflectable opening.

The Applicant submits that cannula of Cox does not disclose or suggest the use of a cannula having radially-expandable opening and does not disclose or suggest that a radially-expandable opening can or should be radially expanded by the interaction and deflection of the obturator relative to the cannula. The Applicant submits that amended claim 78 clearly distinguishes from Cox and any combination of Cox and the other cited art.

The Applicant respectfully requests that the rejections of claim 78 and its dependent claims 80-82 reconsidered and withdrawn. New dependent claims 83-93 are dependent upon claim 78 and also distinguish from Cox.

3. Response to Rejection of claims 48 and 49 based upon Cox.

The aspects of the invention recited in original claims 48 and 49 are now recited in new claims 88 and 89. With specific reference to the rejection of claims 48 and 49 (now 88 and 89), since the Patent Office does not appear to recognize the distinctions of these aspects of the invention from the cited art, the Applicant reiterates the comments made in the earlier response. Claims 88 and 89 recite inventions in which the camming surfaces **are moveable relative to the structures on which the camming surfaces are mounted**. Again, the Applicant respectfully submits that Cox does not disclose this invention in any way, shape, or form. As illustrated most clearly in Figures 11A-11D of the application, in this aspect of the invention, as recited in claim

88, the first camming surface that is associated with the cannula, is movable relative to the cannula. For example, the surface of lever 750 is movable relative to the cannula 718 to which lever 750 is mounted. As recited in claim 89, the second camming surface that is associated with the obturator, is movable relative to the obturator. Nowhere in Cox is this invention disclosed or suggested. The Applicant requests that these rejections be reconsidered and withdrawn.

4. Response to Rejections Pursuant to 35 USC §102 based upon Riza

In paragraph 4 on page 3 of the Office Action, the Patent Office rejected claims 9, 11-13, 31, 48, 49, 54, 59-82 pursuant to 35 U.S.C. 102(b) as anticipated by U.S. Patent 5,993,471 of Riza, et al. [herein "Riza"]. The Applicant submits that the above amendments distinguish over Riza and requests that the Patent Office reconsider these rejections in view of these amendments.

In paragraph 4 on page 3 of the Action, the Patent Office identified the structures 19 and 16a as "first and second bearing surface[s] [which] slidably engage each other when rotating the obturator relative to the cannula." However, a close examination of Riza indicates otherwise. In the passage bridging columns 3 and 4, Riza states:

The stylet 16 has an enlarged proximal head 17 preferably having a plurality of radially extending ribs 16a on a distal side thereof which mate with corresponding radial grooves 19 formed on the proximal end surface the housing 12, as shown in FIGS. 1 through 3. The ribs 16a and the grooves 19 cooperate to prevent rotation of the stylet 16 with respect to the housing 12 during insertion of the trocar assembly through the abdominal wall. [Emphasis added.]

Clearly, as stated in Riza, grooves 19 and ribs 16a do not slidably engage as suggested by the Patent Office. Grooves 19 and ribs 16a of Riza "cooperate to prevent rotation." There is no suggestion in Riza that grooves 19 and ribs 16a interact in any other way other than to engage to prevent rotation of the obturator-like structure (stylet 16) relative to the cannula-like structure (housing 12).

Moreover, as discussed above, claim 78 has been amended to recite that the cannula includes a "radially-expandable opening" on the distal end and that the obturator have "a point formed on the distal end of the shaft, said point tapering distally from a maximum diameter band." Furthermore, claim 78 now recites that the movement of the obturator caused by the interaction of the camming surfaces causes the maximum diameter band of the obturator to radially deflect the radially-deflectable opening as the maximum diameter band passes through the radially-deflectable opening.

The Applicant submits that the cannula-like structure of Riza does not disclose or suggest the use of a cannula having radially-expandable opening and does not disclose or suggest that a radially-expandable opening can or should be radially expanded by the interaction and deflection of the obturator-like structure relative to the cannula-like structure. The Applicant submits that amended claim 78 clearly distinguishes from Riza and any combination of Riza and the other cited art.

The Applicant respectfully requests that the rejections of claim 78 and its dependent claims 80-82 in view of Riza be reconsidered and withdrawn. New dependent claims 83-93 are dependent upon claim 78 and also distinguish from Riza.

5. Response to Rejections Pursuant to 35 USC §102 based upon Smith

In paragraph 5 on page 3 of the Office Action, the Patent Office rejected claims 22, 23, 25, 26, and 66-73 pursuant to 35 U.S.C. 102(b) as anticipated by U.S. Patent 5,807,338 of Smith, et al. [herein "Smith"]. Since these claims have been canceled, these rejections are moot.

6. Response to Rejections Pursuant to 35 USC §102 based upon Shipp

In paragraph 6 on page 4 of the Office Action, the Patent Office rejected claims 22, 23, 25, and 26 pursuant to 35 U.S.C. 102(b) as anticipated by U.S. Patent 5,263,937 of Shipp [herein "Shipp"]. Since these claims have been canceled, these rejections are moot.

7. Combination of Shipp with other cited references

The Applicant submits that the invention recited in amended claim 78 is not anticipated by Shipp nor is the invention recited in claim 78 obvious in view Shipp or any combination of Shipp and any of the other cited art. Nowhere does Shipp disclose or suggest that the trocar of Shipp include camming surfaces that interact to move the obturator and deflect a radially-expandable open end. Though the cannula of Shipp may have an open end that may be radially expandable, there is no teaching or suggestion in Shipp that the expansion of the open end be effected by movement of the cannula caused by the interaction of camming surfaces on the cannula and the obturator. Among other things, aspects of the present invention permit the gradual, controlled axial movement of the obturator by the surgeon by rotating the obturator relative to the cannula. There is no teaching or suggestion in Shipp that the obturator of Shipp is moved by axially pulling the obturator relative to the cannula. The Applicant submits that this axial pulling of the obturator of Shipp by the surgeon cannot be smooth and controlled, but is inherently prone to erratic, potentially dangerous, displacement of the obturator. Of course, such potentially erratic, uncontrolled movements of a surgical instrument are highly undesirable in the delicate, life-threatening environment of an operating room. Aspects of the present invention, remedy this undesirable situation.

In addition, in contrast to one aspect of the invention, the open end of Shipp is not smooth and continuous. Shipp is the very art over which the present invention is an

improvement. Contrary to one aspect of the present invention, as clearly described in the Abstract of Shipp and shown in Figures 1 and 7, the cannula of Shipp includes "a proximal end having a number of slits [42] cut in the axial direction, thereby creating finger-like segments at the distal end of the cannula." This is precisely the prior art over which the smooth and continuous open-ended cannula aspect of the present invention is an improvement. These slits of Shipp can provide obstructions that can tear tissue or sutures or entangle sutures. Aspects of the present invention overcome this disadvantage by providing a cannula having a smooth and continuous open end that does not provide surfaces that can cause obstructions to, for example, sutures.


8. Conclusions

The Applicant submits that, based upon the above observations and arguments:

- 1) The inventions of amended claim 78 and its dependents are not anticipated by Cox (See Section 2 above.);
- 2) The inventions of claim 78 and its dependents are not anticipated by Riza (See Sections 3, 4 above);
- 3) The inventions of claim 78 are not obvious in view of Shipp or any combination of Shipp and any other the cited art (See Section 7 above); and

The Applicant believes that the application is in allowable form. Early passage of the application to issue is earnestly solicited. Should any matters remain outstanding, it is requested that the undersigned Agent be given a call so that such matters may be worked out and the application placed in condition for allowance without the necessity of another Action.

Respectfully submitted,


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